

# A Road Map for Cleaner Energy

How Duke Energy is planning for Indiana's energy future

As Indiana's largest electric supplier, Duke Energy has a responsibility to provide our approximately 840,000 customers with reliable and increasingly clean electricity while keeping costs as low as possible. This means we regularly do long-range planning for power supplies.

Based on Indiana Utility Regulatory Commission guidelines, we create an Integrated Resource Plan every three years--a road map showing how we'll fulfill our obligation to meet customers' energy needs using a diverse mix of power generation resources, including coal, natural gas, and carbon-free power such as hydro, solar and wind energy. We also plan for how we can offer energy efficiency programs that reduce demand for power, saving consumers money and helping us avoid building new power generation.

## The key components of our 2018-2037 Integrated Resource Plan include:



**Energy Diversity.** Generation diversity is essential for a robust plan. Some generation sources are better for the environment, some are more economical and some are required for meeting 24/7 energy needs – a balanced mix is necessary to serve customers in the most reliable and economical way possible while using increasingly clean forms of energy.

In 2018, nearly 90 percent of the power we produced in Indiana was coal-fired. Coal emits carbon dioxide when it is burned, and our customers would be hurt by harsh carbon regulations that must be met very quickly. Also, the cost of renewable power has been declining, and customers want cleaner power options. For all those reasons we are focused on diversifying our power generation.

In this plan we are accelerating the retirement dates for some of our coal-fired units and adding more natural gas and renewable energy to our supplies. However, ***these are not final decisions to retire units or add new power generation to the system.*** As circumstances change, so may assumptions about coal retirements and power generation replacements.



**Cleaner Energy.** We will continue our transition to an even cleaner energy future. Since 2005 in Indiana, Duke Energy has decreased sulfur dioxide emissions by 95 percent, nitrogen oxide emissions by 63 percent and carbon emissions by 21 percent.

We operate Edwardsport Station, one of the cleanest coal-fired power plants in the world. The plant converts coal to a synthesis gas, strips out many of the pollutants, and then burns the cleaner gas. We've also built one of Indiana's largest solar plants in Southern Indiana and are expanding our Markland hydroelectric station to increase its output of carbon-free power.

As coal-fired generation is gradually retired, we expect to add by year 2037 1,240 megawatts of cleaner burning natural gas, 700 megawatts of wind energy, and 1,650 megawatts of solar power. We're creating a more diverse portfolio with less carbon and less risk than other alternatives that may rely more on purchased power from the market--all while being cost competitive.



**Efficient Energy.** We will continue fostering ways to help customers use energy more wisely and save money. Our Indiana energy efficiency programs have helped customers save more than 1.6 billion kilowatt-hours over the last 10 years.

# ARoad Mapfor Cleaner Energy

The 20-year plan submitted by the company considers the input of various stakeholders and describes how we will use existing and future resources to meet customer power demand. Because the plan covers such a long-time period, it is reevaluated every three years based on changing factors such as energy demand, environmental regulations, and fuel and power prices.

Below is an overview of our 2018-2037 Integrated Resource Plan. Retirement dates and new generation plans are only projections and not commitments.

## Cayuga Station

### Vermillion County, Ind.

Two coal-fired units

Unit 1—500 MW	Advancing retirement from 2035 to 2028; 9 remaining years of operation
Unit 2—495 MW	Advancing retirement from 2037 to 2028; 9 remaining years of operation

Proposed replacement: 1,240 MW combined cycle natural gas-fired plant

## Gibson Station

### Gibson County, Ind.

Five coal-fired units

Unit 1—630 MW	Advancing retirement from 2041 to 2038; 19 remaining years of operation
Unit 2—630 MW	Advancing retirement from 2040 to 2038; 19 remaining years of operation
Unit 3—630 MW	Advancing retirement from 2043 to 2034; 15 remaining years of operation
Unit 4—622 MW	Advancing retirement from 2044 to 2026; 7 remaining years of operation
Unit 5—620 MW	Advancing retirement from 2047 to 2034; 15 remaining years of operation

## Gallagher Station

### Floyd County, Ind.

Two coal-fired units

Unit 2 – 140 MW	Previously announced retirement date – 2022
Unit 4 – 140 MW	Previously announced retirement date – 2022

## Edwardport Station

### Knox County, Ind.

Coal-to-gas plant

595 MW	No change in 2045 retirement date
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## Noblesville Station

### Hamilton County, Ind.

Natural gas-fired combined cycle plant

300 MW	Advancing retirement date from 2038 to 2034; 15 remaining years of operation
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